Exemption No. 6834

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
RENTON, WASHINGTON 98055-4056

In the matter of the petition of

Mid East Jet, Inc.

for an exemption from § 25.813 (a) of Title 14, Code of Federal Regulations

Regulatory Docket No. 29216

PARTIAL GRANT OF EXEMPTION

By letter dated April 24, 1998, Mr. Albert B. Randall of Baker, Donelson, Bearman & Caldwell, 801 Pennsylvania Ave. NW, Washington, DC, 20004, petitioned on behalf of Mid East Jet, Inc., for an exemption from the requirements of § 25.813(e) of Title 14, Code of Federal Regulations, to permit installation of interior doors between passenger compartments on a Boeing 757-200 series airplane.

The petitioner requests relief from the following regulations:

Section 25.813(e) prohibits the installation of doors between passenger compartments.

Related Sections of the Federal Aviation Regulations (FAR):

Section 25.813(f) requires that doors, which are located within a required egress path to an emergency exit, have a means to be fastened in the open position, and that the means to fasten the door open must be able to withstand the ultimate inertia forces specified in § 25.561(b).

ANM-98-023-E

The petitioner's supportive information is as follows:

"DISCUSSION:

"DISTINCTIONS BETWEEN AIR CARRIER AND EXECUTIVE TRANSPORT

"Part 25 of the Federal Aviation Regulations governs design certification of Transport Category airplanes. The primary intent of these regulations, as written, is to assure that aircraft manufacturers provide for the appropriate design features in their respective aircraft to meet the standards necessary to protect the traveling public. Clearly, there is a requirement in the interest of safety to provide appropriately stringent regulatory standards for certification. However, it is also clear that these regulations are largely designed to regulate the certification of aircraft types that are typically used for airline-type service.

"While many of these regulations represent appropriate design criteria for any Transport Category aircraft, regardless of its intended use, some, which are geared more toward regulating airline-type usage situations, offer little appropriate regulatory distinction or flexibility for dramatically different situations such as executive transportation. It is important to recognize that, in general, much of the FAA's regulatory framework does make significant--and appropriate--distinctions between types of aircraft operators. The requirements, for example, that apply to an air carrier that provides air transportation are dramatically different, in most respects, from the regulations that apply to a general aviation operator. The same should hold true, in appropriate circumstances, in prescribing or administering minimum standards for aircraft design. In fact, the FAA's organic statutory authority, contained in 49 U.S.C. §44701(d), specifically directs that, when prescribing regulations and standards for, among other things, aircraft design, the Administrator is to consider 'the duty of an air carrier to provide service with the highest possible degree of safety in the public interest' as well as the '**differences** between air transportation and other air commerce.' (Emphasis added) The unyielding adherence to FAR 25.813(e) in all circumstances for all operators fails to acknowledge these important 'differences.'

"When a Transport Category airplane is operated under FAR Part 91 and 91.501 and/or FAR Part 125, some of the FAR 25 rules specify criteria that, if applied rigidly, bear little relationship to the type of operation regulated. FAR 25.813(e), which prohibits doors in any partition between passenger compartments, is just such a rule, whose application should be tailored in a more flexible way to meet non-airline type operations when pertinent safety concerns are addressed.

"It is important to recognize that, in terms of aircraft doors, the FAA has already made regulatory distinctions--between those who engage in private carriage and those who engage in air transportation--in the case of Commuter Category aircraft certified under

the provisions of FAR Part 23. Commuter Category airplanes include multi-engine propeller airplanes that have a seating capacity up to 19 passengers and weigh 19,000 pounds or less. FAR 23.813(b)(4) permits the installation of a door in a partition between passenger compartments on such aircraft if the 'door has a means to latch it in the open position. The latching means must be able to withstand the loads imposed upon it by the door when the door is subjected to the inertia loads resulting from the ultimate static load factors prescribed in Part 23.561(b)(2).'

"When the FAA acted, as part of its 'one level of safety' effort, to bring the requirements for commuter operators into line with the provisions of Part 121, it then imposed on commuter operators of aircraft of more than 9 passenger seats the FAR 121.310(f)(5) prohibition of doors between passenger compartments. Significantly, though, the FAA did not amend FAR Part 23 so that all types of aircraft operations would be affected. This means that, in the case of Commuter Category airplanes, a person other than a commuter operator--e.g., the operator of an aircraft used for executive transportation--may install doors between passenger compartments so long as the latching mechanisms meet certain specifications. On the other hand, a commuter, which operates aircraft with more than 9 passenger seats, may not. Thus, the agency's operating regulations appropriately provide for the needs of air transportation, while its basic certification regulations, in essence, recognize that there may be different uses for aircraft certificated under the rules. In this parallel case, the FAA has made an appropriate distinction between the regulatory requirements that apply to air transportation and those that should apply to other forms of air commerce.

"Transport Category airplanes intended for private use, whether originally designed for private use or public, revenue-type operations, and utilized under FAR Part 91 or FAR Part 125, are typically used for personal (corporate) non-revenue operations, which represent significant operational differences from the typical airline operation. Some of the typical differences represented in these private operations can be described as follows:

"1. Operation is limited to the private use of individuals or private entities and does not include 'air transportation,' as defined in aviation statutes.

"2. Passenger capacity for the aircraft is significantly less than for an equivalent aircraft in commercial operations. Typically, the capacity is less than 30% of that found in an airline configuration, which, among other things, generally provides for a far greater ability for passengers to evacuate the aircraft in a more rapid fashion should an emergency arise.

"3. Flight and cabin crews are typically highly trained in, and far more familiar with, the individual aircraft they are operating, since it is normally the primary aircraft on which they perform their duties.

"4. Passengers on these aircraft are generally repeat passengers, and often consist of corporate employees or individual owners and family members. As a result, the passengers are far more familiar with the layout of the individual aircraft and the associated emergency equipment and exits.

"5. Custom interior layouts, furnishings, fixtures, furniture, cabinets, galleys, etc., are more representative of 'Board Room' type furnishings than airline style interiors. These interiors typically contain floor plan layouts designed to provide private areas to meet the special needs of executive transportation, offering the privacy and comfort features that are expected for such transport.

"STC CONDITIONS

"The subject aircraft of this Petition for Exemption was issued a Standard Certificate of Airworthiness, with an exception, on December 19, 1997. The exception is Exemption No. 6710 (Sixty Foot Exit-to-Exit Distance), dated December 18, 1997 (Temporary), which expires on December 20, 1998, unless the Administrator grants a permanent exemption prior to that date. "The issuance of the Certificate of Airworthiness required compliance with Supplemental Type Certificate Project No. 5T4971SC-T, covering the installation of an executive interior in the aircraft. The STC was applied for on behalf of Mid East Jet, Inc. (Owner/Operator) and Jet Aviation (Completion Center) by Schwartz Engineering Company of San Antonio, Texas.

"During the course of the STC application, Schwartz Engineering Company presented an Issue Paper dated October 30, 1997, (Exhibit A) stating an exception to the FAA position with regard to FAR 25.785(h)(2) and 25.813(e). Additional correspondence relating to FAR 25.813(e) was presented to the FAA on December 3, 1997, (also attached as part of Exhibit A) indicating Schwartz's position that the doors involved were doors between a passenger compartment and 'Other' areas, and not doors between passenger compartments. That position was ultimately rejected by the FAA's Transport Category Aircraft Directorate in a letter faxed to Schwartz on December 20, 1997.

"As a further requirement of the final certification process of the subject aircraft, and to be in full compliance with all appropriate regulations, the applicant requested by letter dated December 15, 1997, full Part 91 Deviation Authority from FAR Part 125 through its appropriate IFO. This request was granted by letter from the Brussels IFO (Exhibit B) [available in the Docket] on December 18, 1997.

"As noted in the approval letter from the Brussels IFO, the maximum seating capacity of the aircraft is now restricted to 25 passengers, since no passengers may be seated in the office or cabanas during taxi, takeoff, or landing. These areas have seating for 16 passengers in aggregate. In addition, the compartments, which are placarded 'not occupiable during taxi, takeoff, and landing,' must have the doors latched open and the above-noted areas secured with 'barriers' at such times.

"Petitioner can find no regulatory basis in the FAR's, Advisory Circulars, or in other FAA materials available to the Petitioner, for the requirement for the installation of barriers. If the intent is for the four areas to be closed-off during the specified operations, a requirement that the doors be closed and latched during these operations would appear to suffice. However, this particular 'requirement' will become moot with the granting of the requested Petition. Thus, for the time being, the Petitioner has included the requested positioning of the doors and the placement of barriers in the pre-taxi/takeoff and before-landing portions of the company Flight Attendants Manual, including the assignment of individual responsibility to specific crewmembers for this task (Exhibit C). [available in the Docket]

"JAMMING OF DOORS

"In the preamble to NPRM 63-42 (28 FR 11507, October 23, 1963), which resulted in Amendment 25-1, the FAA stated (regarding the proposal that became FAR 25.813(e)): 'The Agency believes, however, that doors in partitions between individual passenger compartments, even when equipped with latches designed to withstand the ultimate inertia forces prescribed in CAR 4b.260(a), may be hazardous, since such doors may be closed inadvertently.' It also stated that 'The Agency has received reports that in a number of crash landings, and even in some hard normal landings, the door latch failed and the door did not remain open.'

"In the Discussion section of Amendment 25-1(30 FR 3204, March 9, 1965), which promulgated FAR 25.813(e), the FAA stated that 'The Agency does not agree that doors should be used instead of curtains, especially since it is possible they may become jammed in crash landings.' Clearly, the reports the FAA cited in 1963 regarding door closures during 'crash landings, and even some hard normal landings' were associated with doors installed prior to the 1965 requirement that such door latching mechanisms be designed to meet the UIF's specified in CAR 4b.260(a)/FAR 25.561(b). Furthermore, they clearly did not reflect the upgraded standards prescribed in 1988. It is also likely that the reports of door latch failures and door closures with which the FAA was dealing were for hinged doors rather than pocket doors.

"This Petitioner has been unable to locate any data which indicates that doors installed in accordance with the UIF tolerances specified in FAR 25.561(b), either as originally included in FAR 25 [New] or as later amended and strengthened, have ever incurred a latch failure during a 'survivable crash landing,' much less during a 'hard normal landing.'

"The doors in question on the subject aircraft are pocket doors, fully enclosed in longitudinal partitions. The partitions themselves are all certified to the requirements of FAR 25.561(b), as strengthened by Amendment 25-64, and fully contain the doors when open. Stress reports covering the surrounding partitions can be provided at the request of

the FAA, if they are needed. Included with this Petition, as Exhibit D, is Stress Report No. 96PT1-104-07, dated December 14, 1997, issued by Jet Aviation, and titled 'Sliding Door Installations.'

"This Stress Report clearly shows that the door, door assembly, door tracking mechanism, hat section, and locking pin assembly all exceed the UIF's prescribed in FAR 25.561(b), as upgraded by Amendment 25-64, and that they exceed these UIF's by substantial margins.

"The FAA states in the Background section of NPRM 86-11(51 FR 25982, July 17, 1986), which resulted in Amendment 25-64, that 'A review of existing accident data has shown that, for survivable accident scenarios, the airplane structure remains substantially intact and provides a livable volume for the occupants throughout the impact sequence.' This data analysis was confirmed by the FAA/NASA Controlled Impact Demonstrations. These data were generated and evaluated before more stringent load factors were implemented via Amendment 25-64. If, as the FAA has stated, with the previous UIF's prescribed prior to Amendment 25-64, the aircraft structure remains intact, then any structure designed subsequent to Amendment 25-64 can be assumed through deductive reasoning to be able to do the same to a greater degree.

"Since the doors in question are totally enclosed (when latched open) in structure that meets Amendment 25-64 requirements, and the door, with its associated mechanisms (including the locking mechanism), exceeds the requirements of Amendment 25-64, this installation should provide an extraordinarily high degree of safety in a survivable crash landing scenario. Also, since the doors are, in fact, fully enclosed by surrounding structure, it would follow logically that, if there were to be a failure in the surrounding structure itself; this would most likely preclude or prevent any door movement, leaving the door in the open position, not closed. Furthermore, the pocket doors are installed in longitudinal partitions, which should provide a further increase in capability to withstand the UIF's prescribed. Moreover, installation techniques, equipment, and materials used in installations have significantly improved in the more than three decades since FAR 25.813(e) was promulgated.

"In addition, it should be noted that the Office door (FS 659.0-725.0), Cabana 2 door (FS 1272.75-1301.25), and Cabana 3 door (FS 1333.25-1356.75) all open forward. (A copy of the aircraft floor plan is enclosed as Exhibit E.) Therefore, the UIF forward load would act to hold these doors open in any event, and the door locking mechanism strength exceeds the rearward UIF by a factor of at least four. The only door subject to the forward UIF's is the Cabana 1 door (FS 1193.25-1218.50), which opens rearward, and the door and the locking mechanism are designed to handle more than the prescribed loads.

"Another significant matter is that the load factors prescribed in FAR 25.561(b) either are the same as or exceed the load factors of FAR 23.561(b)(2), which governs the installation of latching mechanisms to permit doors between passenger compartments in Commuter Category airplanes. The sideward load prescribed in FAR 25.561(b) is twice that of FAR 23.561(b)(2), and a rearward load of 1.5 G is contained in FAR 25.561(b) whereas FAR 23.561(b)(2) specifies no rearward load. Thus, 19 passengers could be provided executive transportation in a Commuter Category aircraft with doors between passenger compartments that meet the less stringent requirements of FAR 23.561(b)(2). On the other hand, without an exemption, no passenger may be provided executive transportation aboard a Transport Category aircraft with doors installed between passenger compartments even though the latching mechanisms would comply with the more stringent requirements of FAR 25.561(b), and, in the case of the aircraft that is the subject of this petition, would exceed those more stringent standards by substantial margins.

"INADVERTENT DOOR CLOSURE

"Since the UIF's already prescribed in the FAR's have been demonstrated to be adequate by FAA's own testing and crash demonstration, and, in the case of doors, have been considered adequate for doors in doorways that passengers must use to reach a required emergency exit (FAR 25.813(f)), the only remaining concern should be that originally put forth by the FAA relative to 'inadvertent' closure of the door at specified times, which could lead to the possibility of a door becoming jammed in the closed position.

"The Petitioner's Flight Attendant Manual (Exhibit C) includes a pending revision, which will be activated upon receipt of this Exemption, whereby Flight Attendants will include proper instructions during their pre-taxi/takeoff and before-landing Passenger Briefings regarding positioning of the doors. The Manual amendment will also provide specific crewmember assignments to ensure that the doors are physically opened and locked. The Petitioner is also willing, at the election of the FAA, to review or consider such additional measures that the FAA believes may facilitate the Flight Attendants' performance of these functions. These measures provide an assurance that doors will be open and latched during specified times.

"It should also be noted that senior FAA officials have asserted that safety is a 'shared responsibility' between the agency and the community that it regulates, and that safety cannot be 'inspected in' by the FAA. This means that the regulated community bears a responsibility to comply with agency regulations, and that the agency, to a large degree, must count on that voluntary compliance. The regulatory structure, indeed, contemplates such compliance by certificate holders. In this regard, the Petitioner has established a sound framework, which, when complied with, will assure that doors are properly secured at the appropriate times. Doors will not be 'inadvertently' closed when they are to be open.

"EXISTING AGENCY APPROVAL TO INSTALL DOORS

"It is worth noting that the FAA has already granted at least one manufacturer of a Transport Category airplane the equivalent of blanket approval to continue to install interior compartment doors in the manufacturer's production aircraft.

"In an Issue Paper prepared by Gulfstream Aerospace Corporation (GAC) and provided to the Transport Airplane Directorate of the FAA, regarding the Gulfstream G-V, Project Number AT0209AT-T, and referencing FAR 25.813(e) and (f), GAC stated that 'The applicant contends that there is **no significant safety benefit** to be gained by revoking Gulfstream's ability to use this level of certification requirement.' (Emphasis added) In its response, the FAA stated that 'FAA has considered the applicant's position, and accepts that the applicant is entitled to retain the provisions of the initial Gulfstream executive transport airplane certification basis concerning this requirement.' The FAA further stated that 'FAA confirms the acceptance of this feature as relayed by Transport Airplane Directorate telephone conference with Gulfstream Aerospace Corporation representatives on September 9, 1994. **The FAA accepts applicant's position**.' (Emphasis added) Thus, the FAA had apparently concluded that there was no 'significant safety benefit' associated with the application of the rule prohibiting doors between passenger compartments in this executive aircraft configuration.

"The FAA's action permitted Gulfstream Aerospace Corporation to continue to install 'doors between passenger compartments' on its newly-manufactured aircraft. The FAA has allowed this practice to continue on the aircraft since original Type Certification, based upon the premise that subsequent aircraft were 'derivatives' of the original Type-Certificated aircraft.

"GAC originally applied for the Gulfstream II Type Certificate on June 24, 1964, and the Type Certificate, A12EA, was issued on October 19, 1967. NPRM 63-42, proposing the prohibition on doors between passenger compartments, was published on October 23, 1963, and FAR 25.813(e) actually became effective on June 7, 1965.

"Petitioner understands that GAC applied for its original Type certificate on the basis of the old CAR Part 4b regulations, and also understands this practice is consistent with FAA policy of typically only requiring compliance with regulations in effect at the time application is made. However, the FAA was fully aware of its intent regarding the subject doors at the time of this application for a Type Certificate, and FAR 25.813(e) was in effect for all others for more than two years before the Type Certificate discussed here was actually granted. Moreover, this allowance to continue to use compartment

doors has progressed through the evolution of the original G-II into the G-IIB, G-III, G-V, G-IVSP, and now the G-V, representing something approaching 500 airplanes.

"FAA's acceptance of GAC's position that prohibiting the installation of passenger compartment doors represented no significant gain in safety benefits necessarily means that the FAA had determined that, in this type of an aircraft configured in an executive interior, FAR 25.813(e) does not, in fact, represent a significant safety benefit. Had the FAA concluded there was a justifiable safety reason to do so, the agency could have required compliance with the provisions of FAR 25.813(e). Also, over the 30-year period that these aircraft have been permitted to operate with doors between passenger compartments, Petitioner is unaware that FAA has found a basis to issue any Airworthiness Directives to remedy any identified safety problems associated with the doors on such aircraft.

"PETITION:

"The Petitioner hereby respectfully requests the FAA to grant an exemption for the subject aircraft from the requirements contained in FAR 25.813(e), which prohibit the installation of doors in any partition between passenger compartments.

"This exemption is required due to the four [4] doors installed in the interior of the aircraft at the following locations:

"Office Door - Opening located between approximately FS 659.0 and 725.0, with a maximum of four [4] passengers seated in the area.

"Cabana 1 Door - Opening located between approximately FS 1192.25 and 1218.50, with a maximum of three [3] passengers seated in the area.

"Cabana 2 Door - Opening located between approximately FS 1271.75 and 1301.25, with a maximum of six [6] passengers seated in the area.

"Cabana 3 Door - Opening located between approximately FS 1333.25 and 1356.75, with a maximum of three [3] passengers seated in the area.

"The purpose of this exemption is to allow the applicant to carry the full load of forty-one [41] passengers for which this executive interior was originally designed and installed.

"BASES FOR EXEMPTION:

"The following capsulizes the bases relied upon by the Petitioner for an exemption from FAR 25.813(e). The aircraft that is the subject of this Petition is a new Boeing 757-200 series aircraft that was delivered 'green' from Boeing to the designated aircraft

completion center, Jet Aviation, in Basel, Switzerland, in February, 1997. Jet Aviation installed an 'executive interior' in accordance with STC Number ST4971SC-T, and the aircraft was issued a Standard Airworthiness Certificate (with an Exception) on December 19, 1997.

"It is a privately-owned aircraft not intended for the provision of 'air transportation,' as defined in governing aviation statutes.

"The FAA's organic statute provides for the FAA to consider appropriate distinctions, in its regulations and standards for aircraft design, between those who engage in 'air transportation' and those who engage in 'other air commerce.' The grant of an exemption from FAR 25.813(e) for executive transportation would be consistent with this statutory direction and appropriately recognizes the differences that exist between this form of 'air commerce' and 'air transportation' provided by air carriers.

"The FAR Part 23 rules governing certification of Commuter Category aircraft permit the installation of doors between passenger compartments. Up to 19 passengers may, thus, be carried on such aircraft in an executive transportation configuration with doors between passenger compartments. Thus, FAA has recognized the distinction between the needs of 'air transportation' and 'other air commerce' in its operating regulations for commuters, not in the design requirements for aircraft that may be used for other than air carrier purposes.

"This is the primary aircraft upon which the crewmembers serve, and the passengers are typically repeat passengers on this aircraft who are very aware of the safety requirements associated with it, and will be made specifically familiar with the regulatory requirement for doors to be latched open during takeoff, taxi and landing.

"Petitioner's Flight Attendant Manual (pending a Revision to be implemented upon receiving an Exemption) clearly specifies adequate Passenger Briefing content regarding the requirement for the doors to be open and locked for all specified operations concerned.

"Petitioner's Flight Attendant Manual (pending Revision) clearly assigns responsibility to specific crewmembers to ensure that the subject doors are properly opened and secured for the specified operations concerned. Flight Attendants will, thus, be subjected to a regulatory requirement to fulfill this responsibility.

"Petitioner is also willing, at the election of the FAA, to review and consider such other measures that the FAA believes would facilitate the Flight Attendants' performance of their functions associated with the subject doors.

"By its own analyses, the FAA has verified that the UIF standards relevant to the doors provide adequate crashworthiness protection.

"The doors, tracking mechanisms, and locking mechanisms exceed the FAA's latest specified UIF's by a substantial degree, providing a further margin of safety.

"The load factors of FAR 25.561(b) equal or exceed the load factors of FAR 23.561(b)(2). Passengers may be carried on Commuter Category airplanes with doors between passenger compartments for which the latching mechanisms meet the less stringent standards of FAR 23.561(b)(2).

"The doors are completely enclosed, when in the opened position, by surrounding structure that also meets or exceeds the FAA's latest UIF standards, providing additional protection.

"Three of the four doors in question open forward providing additional protection from closure due to forces that may be incurred during a crash landing.

"All of the doors in question are installed in longitudinal partitions rather than lateral, giving additional protection from the highest load factors involved.

"The FAA has permitted the continued installation of doors between passenger compartments in executive aircraft interiors for certain derivative aircraft for a period in excess of 30 years, when it could have required the application of such regulation had it concluded there was a justifiable safety basis for doing so. Instead, FAA documents implicitly acknowledge that there would not be a 'significant safety benefit' from requiring that the provisions of FAR 25.813(e) be mandated for such an executive transport configuration.

"The applicant would suffer unnecessary and undue financial harm by being forced to continue to restrict the passenger capacity of its private aircraft by almost forty [40] percent of the designed capacity for executive transport.

"Curtains would not be an acceptable substitute for pocket doors, in this case, because of the level of privacy sought and expected by those who would receive executive transportation aboard the aircraft, which, in the past, has included high level government representatives conducting state business.

"The exemption would afford an equivalent level of safety as to that afforded by the underlying rule.

"PUBLIC INTEREST:

"The approval of this Petition for Exemption would be in the Public Interest for the following reasons:

"1. Consistent with congressional and Administration interest in providing meaningful regulatory reform, it would demonstrate the FAA's willingness to provide appropriate regulatory flexibility that recognizes appropriate distinctions between types of aircraft usage. This is also consistent with statutory direction to the FAA, and parallel to the treatment already afforded Commuter Category airplane operators.

"2. The measures taken by the applicant will provide an equivalent level of safety to the regulation from which exemption is sought, leading to no derogation of safety, while permitting the Petitioner more efficient and economical use of its aircraft.

"3. This type of exemption can facilitate the efforts of U.S. manufacturers and aircraft completion centers to provide better for the needs of executive transportation, enabling them to compete more effectively in this expanding market and providing greater stability and improved financial performance.

"4. Improved financial performance allows U.S. corporations to continue to invest in new R&D which will allow the U.S. to maintain or improve its competitive position in the world economy.

"5. A large number of these types of sales can be predicted to be to 'offshore' clients, contributing positively to the U.S. balance of trade.

"Therefore, in accordance with the provisions of FAR 11.25 and in consideration of the foregoing information, Petitioner requests an exemption from the provisions of FAR 25.813(e) to permit the installation of the four previously-described doors between the areas considered by the FAA to be passenger compartments. This will permit the carriage of an additional 16 passengers aboard the aircraft."

A summary of the petitioner's request for Exemption appeared in the Federal Register on June 3, 1998 (63 FR 30283). No comments were received.

The FAA's analysis/summary is as follows:

As noted by the petitioner, the regulations regarding interior doors were amended primarily to address doors in transverse partitions. Nonetheless, the concerns with these doors, (namely the potential to obstruct access to emergency exits as well as creating a potential for lack of recognition of exits beyond the door) apply to other types of doors as well. In fact, the current regulations do allow the installation of interior doors, provided

passengers are not seated on both sides of the door for takeoff and landing. The FAA is concerned that doors not be located between passengers and exits, and has proposed to prohibit such installations in the future in Notice of Proposed Rulemaking 96-9.

To address the petitioner's arguments in order, the FAA recognizes that there are differences in the operation of executive/private use airplanes, and those used for commercial transport. Part 25, however, makes no such distinctions. Certain requirements have passenger capacity discriminants as part of the regulation itself, but this is not related to how the airplane will be utilized. In addition, the regulations related to interior doors do not contain such a provision. That notwithstanding, the FAA does acknowledge that private use airplanes have at least the potential to address requirements on the basis or characteristics peculiar to that type of operation and passenger complement.

The FAA notes that the differences in operation summarized by the petitioner are qualified as "typically" and "generally," and so are evidently not exclusively limited to the restrictions noted. The FAA considers that any reliance on such restrictions would have to be based on the restrictions being strictly adhered to.

With respect to the differences between part 23 and part 25, it is not appropriate to address one specific regulation when making such comparisons. The requirements must be taken in the aggregate, as the standards for each category address all related issues and cannot be isolated. In addition, the rationale behind the various requirements is based on the complicated balance of regulation and safety, and differs between categories of aircraft.

Regarding the current conditions of approval for the airplane, the FAA recognizes that they result in limitations that are undesirable to the operator. However, they are specified simply to allow compliance with the airplane's certification basis.

The petitioner's discussion of the adequacy of the structural requirements to assure that a properly positioned door, will remain in position following a minor crash landing accurately summarizes the requirements. Clearly, since the regulations currently allow the installation of some doors under these provisions, they are considered adequate. Jamming of doors, however, is not limited to doors that have been properly positioned. Neither does it exclude the potential for the door to jam before it can be properly positioned (due to mechanical failure, for example). The doors envisioned by the current regulations are more limited, more likely to be under direct crewmember control, and thus not as subject to these concerns. It is correct, however, that the rules do not make a distinction for the type of door, its orientation, or its location within the cabin. The FAA acknowledges that these factors may have a bearing on the reliability of the restraint

means, as well as the procedures to ensure that the door is, and can be, open for taxi, takeoff and landing.

The applicant also points out that the FAA is on record as stating that safety is a shared responsibility, and if there is a requirement for a door to be open for takeoff and landing, the FAA should assume that this requirement will be carried out. It *is* the FAA's position that safety is a shared responsibility, and as such the FAA relies on voluntary compliance of applicants to implement many of the safety provisions of the FAR. This does not alter the fact that, with a door, there is a potential for the door to be closed when it should be open, whereas there is no such potential if the door is not installed. This is not to imply that a requirement would be deliberately violated. Unforeseen circumstances can result in specific procedures not being carried out without any willful intent to do so.

The FAA considers the approval of the Gulfstream GV not relevant to this petition. The certification basis of the GV does not include the regulation that prohibits doors between passenger compartments. Were this a valid basis for an exemption, any safety advance could be argued away on the basis that previous versions of the regulations did not include it. When the regulations are amended, the amended regulation becomes the standard of safety that the FAA considers the minimum acceptable. An exemption must be justified against the applicable regulations and on its own merits. The fact that an earlier version of the regulations did not include the particular provision, and is still utilized by another airplane, is not a justification for an exemption for a different airplane.

The petitioner's discussion of the public interest in granting this petition is largely based on the potential for competitive advantages afforded manufacturers and modifiers, if they are able to install doors between passenger compartments. The FAA notes that the requirements for type certification in the United States are equally applicable to all manufacturers, regardless of nationality, so there is no competitive disadvantage currently. The same holds true for any benefits to trade, as any companies competing with U.S. manufacturers are effectively required to follow the same requirements. That is, any provision not complying with the FAR, but acceptable to a foreign regulatory authority, can be excepted by that authority. Nonetheless, while this type of operation may not benefit the public at large, it has no adverse effect, and may benefit the affected segment of the public.

The FAA is giving great attention to the issue of transport category airplanes operated in private use. There are several regulatory requirements, including those related to interior doors, that lend themselves to consideration for modification when looking at the differences between commercial and private use operations. The FAA intends to summarize its views on these regulations and, ultimately, propose modifications to the requirements, where appropriate. It may be that interior doors are included in the proposed modifications, and that additional design flexibility can be offered, when certain circumstances are met. This issue is not resolved at this time, however, and the

particular interior in question must be addressed on its own merits. In light of this activity, the FAA does consider that public interest may be served by allowing the additional configurations that certain interior doors may provide.

The petitioner has requested installation of several doors between passenger compartments, each of which leads into a room. In one case, the room also contains an emergency exit. The FAA has considered the special case of rooms, where only the occupants of the room are required to use the door to reach emergency exits. The FAA has determined that transportation not being offered to the general public may constitute a special case, not necessarily accounted for within the current regulations. Nonetheless, safety issues need to be addressed before such an installation may be accepted.

With respect to the possibility that a door will remain closed when it should not be, the FAA has determined that a higher level of awareness is required to address this issue. Due to the relative complexity of the cabin interior, the FAA has determined that inspection by flight attendants prior to takeoff and landing is not sufficient to verify that interior doors are in their proper position. Consequently, some type of remote indication is considered necessary.

With respect to the integrity of the means used to latch doors open for takeoff and landing, the FAA considers that redundant means are necessary. Each latching means should have the capability of retaining the door in the takeoff and landing position under the inertia forces of § 25.561. In addition, the FAA has determined that the door must be frangible, in the event that it is closed, or closes during an emergency landing. Frangibility may be demonstrated in accordance with the criteria set forth in Advisory Circular 25-17, paragraph 43.b(2).

As noted above, the FAA does not consider that all interior doors are equivalent. In the case of doors that open into rooms, for which only the occupants of the rooms must use the doors to reach an exit, the FAA considers that is a potentially acceptable installation. The FAA is not ready to approve doors on passenger compartments that must be used by other persons to reach an emergency exit. For the airplane in question, one of the interior doors requested would not be acceptable.

Although not part of this decision document, the petitioner raised the issue of requiring certain doors to be closed or to have barriers to entry installed for takeoff and landing, and contends that this requirement does appear in the regulations. While there is no explicit requirement to keep certain rooms closed off for takeoff and landing, the regulations do require that there be means for rapid evacuation and that exit markings be conspicuous and simple. Where there are potentially misleading exit cues, it is common to require that these be muted. This includes the closure of doors, or installation of barriers across doorways, that could lead passengers into areas that are not part of the egress path. Thus, when rooms (in which there are no exits) are not occupied for takeoff and landing, means should be provided so as not to lead passengers into these rooms.

In consideration of the foregoing, I find that a partial grant of exemption is in the public interest and will not adversely affect he level of safety provided by the regulations. Therefore, pursuant to the authority contained in 49 U.S.C. 40113 and 44701, delegated to me by the Administrator (14 CFR § 11.53), the petition of Mid East Airlines for an exemption from the interior door requirements of § 25.813(e), to allow the installation of interior doors on a Boeing 757 airplane, is hereby granted, with the following provisions:

1. The airplane is not operated for hire, or offered for common carriage.

2. No door may be installed in a compartment such that persons, other than occupants of the compartment, would have to pass through that door to reach an emergency exit.

3. Each door must have a means to signal to the flight crew when the door is closed.

4. Each door must have dual means to retain it in the open position, each of which is capable of reacting the inertia loads specified in § 25.561(b) of the FAR.

5. Each door must be frangible.

Issued in Renton, Washington, on October 19, 1998

/s/ John J. Hickey
John J. Hickey
Acting Manager
Transport Airplane Directorate
Aircraft Certification Service, ANM-100